

## PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

10/516842

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|--|--|--|---|
| Applicant's or agent's file reference<br>4362-2  | <b>FOR FURTHER ACTION</b>                                |  | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No.<br>PCT/IL 03/00478   | International filing date (day/month/year)<br>04.06.2003 | Priority date (day/month/year)<br>05.06.2002 |   |
| International Patent Classification (IPC) or both national classification and IPC<br>B65D81/03 |  |  |   |
| Applicant<br>NOVA-TEK TECHNOLOGIES LTD. et al.   |  |  |   |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

- I  Basis of the opinion
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

|  |   |
|--|---|
| Date of submission of the demand<br>05.01.2004   | Date of completion of this report<br>25.06.2004                     |
| Name and mailing address of the international preliminary examining authority:<br><br><br>European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465 | Authorized Officer<br><br>Balz, O<br>Telephone No. +49 89 2399-7218 |



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/IL 03/00478

**I. Basis of the report**

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

|      |                                  |
|------|----------------------------------|
| 2-13 | as originally filed              |
| 1    | filed with telefax on 03.06.2004 |

**Claims, Numbers**

|      |                                  |
|------|----------------------------------|
| 1-19 | filed with telefax on 03.06.2004 |
|------|----------------------------------|

**Drawings, Sheets**

|         |                     |
|---------|---------------------|
| 1/7-7/7 | as originally filed |
|---------|---------------------|

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
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International application No. PCT/IL 03/00478

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

|                               |             |      |
|-------------------------------|-------------|------|
| Novelty (N)                   | Yes: Claims | 1-19 |
|                               | No: Claims  |      |
| Inventive step (IS)           | Yes: Claims | 1-19 |
|                               | No: Claims  |      |
| Industrial applicability (IA) | Yes: Claims | 1-19 |
|                               | No: Claims  |      |

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:  
D1: FR 87 107 E (SUROY JULES LEON) 17 June 1966 (1966-06-17)  
D2: US-A-4 169 002 (LARSON CURTIS L) 25 September 1979 (1979-09-25)  
D3: US-A-5 340 632 (CHAPPUIS MICHEL) 23 August 1994 (1994-08-23)
2. D2 discloses an inflatable cellular cushioning material (12) having an pipe entry line (18) to be inflated by an inflating device through the use of an air inlet pipe, the inflatable cushioning material comprising at least two layers (14) of plastic whereby the two layers of plastic are pre-welded so as to form a row [...] of longitudinal pre-welded lines defining longitudinal walls of cells (19) in a brick like configuration [...] such that a flow of air is possible from one cell to the another along the horizontal span of the inflatable cellular cushioning material.

The cushioning material of the application differs from the material of the closest prior art (D1) by comprising several horizontal rows whereby each of the cells comprises at least one opening facing at least one opening in an opposite row of cells.

Thus the cushioning material of claim is new (Art. 33 (2) PCT).

The problem to be solved by the present invention may therefore be regarded as providing an cushioning material which can be inflated quicker. D2 discloses several horizontal rows of pre-welded cells but none of the openings of the cells faces an opening in an opposite rows. Thus the cushioning material of claim 1 is considered as involving an inventive step (Art. 33 (3) PCT).

The industrial applicability seems to be obvious.

3. Claims 2-19 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

# INFLATABLE CELLULAR CUSHIONING MATERIAL HAVING A

## BRICK LIKE FORMATION

### BACKGROUND OF THE INVENTION

#### FIELD OF THE INVENTION

5 The present invention relates to a cellular cushioning material, in general and to inflatable cellular cushioning material having horizontal lines creating sleeves material for cushioning products and void filling, in particular.

#### PRIORITY APPLICATION

10 The present application claims priority from U.S. application 10 60/385,607 for "DEVICE AND METHOD FOR THE PRODUCTION OF CELLULAR CUSHIONED MATERIAL" filed on June 5, 2002.

#### DISCUSSION OF THE RELATED ART

Inflatable cellular cushioning materials are widely used for packaging, cushioning of various products, void filling as well as for other uses. Inflatable 15 cellular cushioning materials contain inflated areas, which may be called "bubbles" or "air bubbles", juxtaposed to each other. Hence, an ideal inflatable cellular cushioning material surrounding or wrapping an object can soften a blow from any source external to the object. Typical products that require cushioning are fragile products, such as glass and porcelain, and products that require special care while handling such as electronic apparatuses and the like. Thus, cushioning 20 cellular materials prevent hitting and shocks that may occur to items during their handling in various circumstances such as transportation or elevation. Handling products while unprotected with inflated materials can seriously damage or incline defects to the functionality and esthetic appearance of the products. 25 Naturally, different products with different characteristics regarding to their weight, size, sensitivity to mechanical shocks and the like require different types of inflatable cellular cushioning materials for their protection. Consequently, there are different inflatable cellular cushioning materials used and various types, sizes and shapes of air bubbles.

30 US patents Nos. 4,169,002 and 5,340,632 and French Patent No. 87,107 teach devices and methods for producing cushioning material.